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ABSTRACT

This study addressed the relative dearth of data on student retention in distance education through archival and survey data on student retention in online courses at a large, comprehensive community college in the Northeast. The college's online program had been active for 5 years, and at the time of the study, encompassed nearly 4,000 student registrations in more than 200 online courses each year. Archival data included records for the past 3 years for "attendance" in class and class performance. A student survey was designed to be administered to students who had received an "F" or "W" (withdrawal) in an online class within the past academic year. Responses were received from 71 usable survey responses from the initial sample of 500 students. The archival and survey data provided insight into the nature of student retention in online courses at a large community college. The study also provides evidence in support of the 4-factor model of barriers to success in distance education courses proposed by M. Garland (1993). Some factors that appear to have negative impact on a student's chances for completing an online course successfully include: (1) large course load; (2) lack of experience in higher education in general; (3) lack of experience with online courses; (4) busy lives outside of school; (5) young age; and (6) lack of easy access to computers. Study findings are being used to inform practice through a comprehensive institutional pilot process. (Contains 23 references.) (SLD)

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Success in Cyberspace: Student Retention in Online Courses

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Success in Cyberspace: Student Retention in Online Courses

Abstract

Student retention is an important issue in distance education. However, in the higher education literature, information on retention of students in online courses is variable. Few empirical studies are being reported. Many articles reference the problem, and then provide descriptions of best practices to address retention. Seldom, however, do articles share actual retention data or student input regarding why they dropped out. This paper attempts to address the relative dearth of actual retention data by presenting both archival and survey data on student retention in online courses at a large, comprehensive community college in the Northeast.

Success in Cyberspace: Student Retention in Online Courses

Student retention remains an important topic of research and debate in higher education. Most recently, it is also being identified as an issue in distance education or online learning. As a recent PBS teleconference noted, "student attrition is one of the biggest obstacles to the credibility – and as a result, the success – of online learning.... The issue is vital both in terms of students' academic success and institutional viability" (PBS Adult Learning Services, 2000).

In the higher education literature, information on the retention of students in online courses is variable. Few empirical studies are being shared. Many articles reference the problem, and then provide descriptions of best practices to address retention. These best practices typically take the form of better course design, more faculty development, or increased interactivity between students and the faculty (Frankola, 2001). Some articles discuss the need for comprehensive or integrated support services for distance students. These support services typically include pre-course orientation, assessment of readiness, online technical and academic support, and opportunities for interaction (Western Cooperative for Education Telecommunications, 2000). A few authors discuss the "retention problem" from theoretical bases, drawing from classic communications and student development systems (Noel, Levitz, et al., 1987; Tinto, 1987).

Another area of research deals with barriers to distance education. During the 1990s, efforts, both empirical and conceptual, were made to identify and explain the impact of selected variables on distance education efforts. A good review of this research is provided by Muilenburg and Berge (2001). A great deal of barrier research deals with perceived issues surrounding the implementation of distance education programs, and is based on survey results of administration or faculty. Efforts to identify barriers to student persistence in distance education were reported in Garland (1993) and Rezabek (1999).

Some of the national interest in student retention in online courses developed in response to an article that appeared in the *Chronicle of Higher Education* (Carr, 2000). The article suggested that "course-completion and program retention rates are generally lower in distance-education courses than in their face-to-face counterparts." The article reported that attrition rates for distance education courses may range from 20 to 50 percent, and that course completion rates in traditional courses are often 10 to 20 percentage points higher than in distance education.

Seldom, however, do articles share actual retention data or provide student responses regarding why they dropped out. Washington State University reported information on their distance degree program students, and the results of a telephone survey (Washington State University, 1999). Their finding of comparability between online and on-campus students regarding the percentage of incomplete grades is consistent with T.L. Russell's meta-research on technology for distance education (Russell, 1999). Russell's review of over three hundred fifty comparative studies showed that there was "no significant difference" (NSD) in learning achievement between face-to-face students and those who were instructed using some form of technology.

This paper attempts to further address the relative lack of actual retention data by presenting both archival and survey data on student retention in online courses at a large, comprehensive community college in the Northeast. The college's online learning program has been active for five years, and is currently the largest in the state's system of public colleges, with close to 4000 student registrations in over 200 online course sections each year. The online learning program is cohort- and semester-based, and instruction takes place in a totally asynchronous environment. The courses are developed using a customized Lotus Notes template, but can be accessed by students via any Internet connection.

Method

To address the perception that retention in online courses is a universal problem, data on retention in online courses at our institution were collected. This data collection took two forms, an analysis of existing archival student records, and a custom-designed student survey.

Archival Data Analysis

For the first portion of the study, data for the past three years' grades in online courses were retrieved from the college's student records database. The research proceeded with a twofold definition of retention: first, as continued attendance in class; and second, as successful performance in class.

More specifically, for the first definition, data were gathered on enrollment in all online courses after the third week of classes and grades at the end of the semester. Using the assumption that a Withdraw (W) or Failure (F) grade represented a non-retained or unsuccessful student, rates of W or F grades were calculated for the past six semesters for online courses and for on-campus courses.

For the second definition, a grade of C or better was used to denote successful course completion. Fall 2001 grades and student demographics were examined in online courses versus campus-based courses in order to identify variables that might be associated with successful course completion. A dataset of registrations and grades in online courses and the same courses taught on campus was assembled. The dataset included an online-indicator variable, along with the course subject and the student's age, gender, ethnicity, full-time/part-time status, college entry status, cumulative credits earned, native language, and academic risk indicator.

Success rates were determined for online and campus-based courses by categories of each demographic variable in order to identify where significant differences existed. The differences were tested for statistical significance using a t-test of proportions. Since the dataset was very

large, consisting of 1915 online registrations and 16291 on-campus registrations, small differences were statistically significant, thus it was decided to look only at groups where the difference between online and traditional course success was at least 10 percentage points. Logistic regression was used to verify that variables had a significant interaction with the online-indicator variable beyond any main effects on grades overall. This procedure was also used to identify variables with multicollinearity so that only the strongest variables remained in the final model.

Student Survey

For the second portion of the study, to learn more about why our students were withdrawing from or not successfully completing online courses, a survey was created and administered to a sample of students who had received an F or W grade in an online class within the past academic year.

As a basis for designing the survey, the research team began with the same set of concerns and reasons for dropping out that are typically used for surveying on-campus students. These included issues such as personal problems, financial problems, changes in work schedule, and teacher-related concerns. These were reviewed and modified by our distance education faculty and staff, incorporating additional general information suggested by the distance learning literature (Harasim, Hiltz, et al., 1995; Moore & Kearsley, 1996; McIsaac & Gunawardena, 1996; Khan, 1997; Palloff & Pratt, 2001) resulting in the addition of such factors as technical skills (Hill, 1997; Fredericksen, Pickett, et al., 2000), feelings of isolation (Eastmond, 1995; Gunawardena & Zittle, 1997), interaction with fellow students (Moore, 1989; Hillman, Willis, et al., 1994; Vrasidas, 1999), and time commitments. Two open-ended questions asked about students' primary reasons for withdrawing or not successfully completing their online course, and requested any advice they had for students contemplating enrolling in an online course.

A paper-and-pencil version of the survey was mailed to the home address of each student in the sample (a total of 500 students). The cover letter accompanying the survey also listed the URL of a website where students could complete the survey online if they preferred. Finally, beginning two weeks after the initial mailing, telephone calls were made to students who had not responded, requesting their participation in a phone version of the survey.

Results

Archival Data Analysis

Overall Grade Analysis

Examination of the archival student records data indicated that across the past six semesters, the non-completion rate (F or W grade) was consistently 5 to 8 percentage points higher in online courses than in traditional courses. F/W rates in the traditional classes ran about 20-21%, while F/W rates in online courses was in the 25-29% range. (See Table 1.)

Table 1.

Rates of F and W Grades Among Online and Traditional On-Campus Students

	Spring 1999	Spring 2000	Spring 2001
On-Campus Students	20.2%	20.5%	21.3%
Online Students	24.8%	26.0%	29.4%
	Fall 1999	**Fall 2000**	**Fall 2001**
On-Campus Students	19.9%	21.1%	20.3%
Online Students	24.8%	26.4%	28.7%

The grade analysis in Table 1 above includes all on-campus courses. When analysis of campus-based courses was limited only to those courses which were also taught online, the non-completion rate was slightly higher than that for all courses, 21.8% for "matched" courses vs. 20.3% for all Fall 2001 courses. The Fall 2001 successful completion rates were 69.6% for matched courses vs. 70.9% for all on-campus courses. Thus the particular selection of courses offered online accounts for part of the difference in the non-completion rates reported in Table 1 between all online courses and all on-campus courses.

Demographic Data Analysis

Using the dataset of Fall 2001 matched courses, success rates were determined for online vs. campus-based courses by categories of each demographic variable in order to identify where significant differences existed. The differences were tested for statistical significance using a t-test of proportions. Since the dataset was very large, consisting of 1915 online registrations and 16291 on-campus registrations, small differences were statistically significant, thus it was decided to look only at groups where the difference between online and traditional course success was at least 10 percentage points.

Logistic regression was used to verify that variables had a significant interaction with the online-indicator variable beyond any main effects on grades overall. This procedure was also used to identify variables with multicollinearity so that only the strongest variables remained in the final model. The regression accounts for very little of the variance in grades overall (about 9%), mainly because the online proportion is very small. However, interactions with the online-indicator variable show significant independent variables that differentially affect online success.

Independent Variables Related to Online Success

Several demographic factors are associated with reduced success rates in online courses: full-time status (and especially being a first-time full-time student and having fewer than 30

accumulated credits), taking certain "tough" subjects online, being a first time student and at academic risk, African American ethnicity, and being under 25 years of age. The magnitude of the effects can be checked by examination of the rates in Table 2. Table 2 also shows some comparison groups whose online success rate is not much different (<10 percentage points) than their success in comparable on-campus courses.

Table 2.

Success in Comparable Online vs. Traditional Course Sections

	Online		Traditional		Percentage Point Difference
	N	% C or Better	N	% C or Better	
TOTAL	1915	65.3%	16291	69.6%	-4.3%
Full time	954	56.4%	12910	70.3%	-13.9%
1st time-full time*	86	40.7%	5321	72.2%	-31.5%
Other FT with < 30 cum. credits*	407	47.4%	4924	64.1%	-16.7%
Full time and >= 30 cum. credits*	461	67.2%	2665	78.1%	-10.8%
1st time & at risk	45	44.4%	2462	66.6%	-22.2%
Taking English, Health, History, Math, Speech, Communication, Music, HVAC*	759	51.6%	8048	65.3%	-13.6%
African American	162	43.2%	2501	56.5%	-13.3%
Under 25 years of age	994	55.0%	12639	67.8%	-12.8%
COMPARISON GROUPS					
Part time	961	74.1%	3381	66.7%	7.4%
1st time & not at risk	172	66.3%	3560	74.0%	-7.7%
Taking other than English, Health, History, Math, Speech, Communication, Music, HVAC	1156	74.2%	8243	73.7%	0.5%
Not African American	1753	67.3%	13790	71.9%	-4.6%
25 years of age or older	921	76.3%	3652	75.7%	0.7%

* Variables in the final logistic regression model ($p<.001$)

Analysis of success rates and the logistic regression showed that the primary variable associated with lower success in online courses was being full-time. Additionally, the fewer the higher education credits completed by these full-time students, the less likely it was that they would succeed in online courses. On the other hand, the success rate of part-time students was higher in *online* courses than in traditional sections. Success of full-time students was almost 14 percentage points lower in online courses than in traditional courses, and the difference between part-time and full-time students in online-course success was almost 18 percentage points. First time full-time students were the least likely to succeed in online courses and had the largest difference between online and traditional courses (-31.5%).

The other variable that was significant in the regression equation was the course subject. The subjects in which online students had significantly less success than on-campus students were English, Health Education, History, Math, Speech, Communications, Music, and HVAC.

Variables Not in the Final Model

The variables denoting age under 25 years and African American ethnicity were significant in the regression until the last full-time group, those with 30 or more credits, was entered. A majority of students in these groups are full time. Conversely, the 25-and-older group is mostly part-time and, in this group, online students did as well as those who were campus based. The first-time-risk variable was also related to success overall, and at-risk students had much lower success in online courses, but the interaction variable did not stay in the logistic regression results because of collinearity with other variables and because the number of at-risk students in online courses was small.

Variables that did *not* show a relationship to success in online courses were gender and English not being the native language. Gender did not differentially affect online grades, i.e., both males and females had less success in online courses than in campus-based courses. There

were not enough non-native English speakers in online courses to show any effect in the analysis.

Student Survey Results

Despite the relative recency of their attendance at the college, many students proved to be completely unreachable by mail or phone. It was found that within one to two semesters, contact information for one-half of the sample was no longer correct. Most students who were reached were cooperative with the survey. However, although the survey sample was limited to students who had withdrawn *after* the first week of classes, many students contacted by phone did not even remember enrolling in an online course. In all, 71 usable survey responses were received from the initial sample of 500, resulting in an overall response rate of 14%.

Survey Sample Demographics

The final survey sample closely reflects the actual gender ratio among all online students, but is over-represented in one age range (20-24) and underrepresented in the 25-29, 30-34 and 35-44 age groups. In terms of ethnicity, the survey sample closely resembles the online student profile except for two categories—the survey sample has more black students and slightly more Hispanic students than the online student population (see Table 3). The overall institutional demographic profile is also shown in Table 3 for comparison purposes.

Table 3.

Demographic Comparison of Survey Respondents, All Online Students, and All Students at the Institution

	Retention Sample Profile	Online Student Profile	Institutional Student Profile
Female	67.6%	66.1%	54.1%
Male	32.4%	33.9%	45.9%
Under 20	14.3%	14.0%	33.0%
20-24	42.9%	31.5%	29.2%
25-29	15.7%	18.0%	11.4%
30-34	8.6%	11.3%	9.0%
35-44	11.4%	18.0%	11.8%
45-59	7.1%	7.2%	5.6%
60 and over	0.0%	0.1%	0.2%
Black	14.1%	9.1%	13.3%
Hispanic	4.2%	3.7%	4.7%
American Indian	0.0%	0.0%	0.5%
NRA (International Student)	0.0%	0.0%	0.6%
Asian	2.8%	2.8%	3.2%
White	77.5%	80.0%	70.1%
Unknown	1.4%	4.4%	9.1%

General findings

Levels of satisfaction. Students' satisfaction with the overall online program at the point of dropout was generally good. Experienced students were more satisfied with (and first-time students were less satisfied with) interaction with faculty, interaction with other students, and directions to get started. All students were dissatisfied with their own performance. Satisfaction or dissatisfaction with faculty interaction, and clear versus vague "faculty directions to get

students started in the course" are the two areas with the greatest disparity in satisfaction among first-time and experienced students.

Expectations. Students' technical expectations going into online courses were generally accurate; however, expectations about the online course format were less accurate. Students reported that they were aware of, and believed that they already had attained, the basic computer and technical skills needed for online instruction. However, many of the students were not at all prepared for the nature of the online environment and indicated that it was "too unstructured" for them.

Reasons for withdrawal. Students' reasons for withdrawing from or not successfully completing their online course varied (see Table 4). "I got behind and couldn't catch up" was a common reason for all students. Female students cited study/work/family balance, while male students said they lacked motivation. First-time online students were more likely to note problems with course delivery and the online format, but for experienced online students, the reasons tended to focus more on academic issues and personal problems.

Table 4.

Students' Top Ten Reasons for Withdrawing from Online Courses

	First-Time Online Students (n=23)	Experienced Online Students (n=48)	All Online Student Respondents (n=71)
Got behind in work	63%	64%	63%
Couldn't handle study plus responsibilities	58%	73%	63%
Lack of motivation	54%	41%	50%
Course taking too much time	50%	41%	47%
Personal problems	40%	57%	45%
Didn't like online format	51%	27%	43%
Course too unstructured	46%	27%	40%
Instructor teaching style	45%	27%	39%
Not interested in subject	33%	41%	36%
Didn't know where to go for help	37%	27%	34%

While 91% of white students indicated that computer access was "not at all important" as a reason they did not successfully complete their course, 56% of black students said that computer access was a "very important" reason for not successfully completing their course. Levels of basic typing and computer skills were not viewed as significant reasons for lack of success.

Likelihood to take another course. Students' self-reported likelihood to take another online course in the future was examined in conjunction with other survey responses. Significant correlations (α=.01) were found between likelihood to take another online course and the following satisfaction items: faculty interaction (.630), online course delivery system in general (.589), technical help with course (.540), directions to get started (.539), directions provided by faculty (.495), content of the course (.477), interaction with other students (.452), and their own

performance in course (.392). In addition, likelihood to take another online course was significantly negatively correlated with the following reasons for withdrawing: course was too unstructured (-.538), didn't know where to get help (-.324), and felt too alone, not part of class (-.306). Likelihood to take another online class and "got behind and couldn't catch up" as a reason for withdrawing were not significantly correlated.

Table 5.

Percentages of Students Indicating They Are "Somewhat Likely" or "Very Likely" to Take Another Online Class by Ethnicity and Gender

Ethnicity		Gender	
Black	65%	Female	65%
Hispanic	38%	Male	38%
Asian	50%		
White	52%		

Factor Analysis of Reasons for Withdrawing

A principle components analysis was used to identify the structural factors underlying the reasons for student withdrawals. The student survey included twenty-two reasons for withdrawing or not successfully completing online classes. As noted earlier, these reasons were drawn from the literature and included items from personal motivation to course content to family problems. The principle components method was set up to extract four factors. The first two factors included 6 variables each and the second two factors included 5 variables each.

Before naming the factors, the research team returned to the literature to see if there were any connections between the current and previous research. Although several studies had suggested four barriers to distance learning, the most promising constructs were those developed

by M. Garland (1993). Her research defined four potential barriers to persistence in distance education. Briefly, the four barriers identified by Garland were:

1. *Situational barriers,* which result from the individual's general environment (social, economic, or personal) and which include such issues as transportation, age, time constraints, family support, or family responsibilities.

2. *Institutional barriers,* which result from college programs, policies, and procedures, and which include issues with admissions, registration, class schedules, financial aid, and other support services.

3. *Dispositional barriers,* which result from an individual's personal background, and which include issues such as attitude, motivation, learning styles, and self-confidence.

4. *Epistemological barriers,* which result from academic or institutional matters, and which include course content, prerequisite knowledge, personal interest, and expectations.

To investigate connections between the current results and these four conceptual barriers, each of the survey's 22 "reasons for withdrawal" was classified according to Garland's four concepts, then these classifications were used to determine their clustering in each of the four factors extracted by the principal components analysis.

The results of classifying the 22 variables to Garland's four concepts suggested a fairly even distribution of the variables across the four concepts (see Table 6 below).

Table 6.

Reasons for Withdrawing Classified into Garland's (1993) Barriers to Distance Learning

Reason for Withdrawing/Not Successfully Completing Online Course	Barrier Type
Course was too difficult	Dispositional
Could not handle the combined study plus work and/or family responsibilities	Situational
Personal problems (health, job, child care)	Situational
Financial problems	Situational
Lack of motivation	Dispositional
Lack of access to a computer	Situational
Too many technical difficulties	Institutional
Lacked basic computer skills	Epistemological
Lacked basic typing skills	Epistemological
Too much reading and writing	Epistemological
Felt too alone, not part of a class	Epistemological
The course was taking too much time	Epistemological
Got behind and it was too hard to catch up	Dispositional
Didn't realize when I registered that it was an online course	Institutional
Space opened up in a regular section of the same course	Institutional
Was able to add another course I wanted more	Institutional
Signed up for too many courses / had to cut down my courseload	Situational
The online course was too unstructured for me	Dispositional
Didn't like the online format	Dispositional
Didn't know where to go for help	Institutional
Didn't like the instructor's teaching style	Dispositional
Not interested in the subject matter	Epistemological

The variable classifications were next used to define the underlying content of each of the four principal component factors. With the understanding that no empirical factor is unidimensional, the four-factor resolution suggests the following factor definitions:

Factor 1 included two Institutional, two Epistemological, one Situational, and one Dispositional variable. Although inclusive of all four concepts, the two variables which loaded highest on this factor were Institutional variables. Consequently, this factor was felt to most closely correspond with Garland's Institutional barrier. Factor 1 deals with basic skills and basic needs for online courses, The Essentials, and was named "Show Stoppers."

Factor 2 included four Epistemological, one Dispositional, and one Institutional variable. The two strongest variables on this factor, as well as two others, were Epistemological. This factor was felt to correspond to Garland's Epistemological barrier. Factor 2 deals with connecting with faculty, fellow students, and content, The Expectations, and was called "You Gotta Have Connections."

Factor 3 included three Dispositional and two Institutional variables. Because of the high loading of variables one and three, both of which were Dispositional, this factor corresponds best with Garland's Dispositional barrier. Factor 3 deals with "did it work for me" type issues and delivery format, i.e., The Experience, and was named "It's All in the Delivery."

Factor 4 included four Situational and one Dispositional variable, and corresponded to Garland's Situational barrier. The items on this factor deal with outside activities and influences beyond the classroom; The External, thus this factor was named "Life Happens."

The structure of each factor is shown in Table 7 below.

Table 7.

Factor Structure Using Variable Names and Garland Classification

Variable	Classification	Factor Loading
Factor 1: Institutional Barriers, or "Show Stoppers"		
Didn't realize course was online	Institutional	.844
Took another course I wanted more	Institutional	.761
Lacked basic typing skills	Epistemological	.674
Lacked basic computer skills	Epistemological	.617
Financial problems	Situational	.548
Course was too difficult	Dispositional	.419
Factor 2: Epistemological Barriers, or "You Gotta Have Connections.		
Felt alone, not part of class	Epistemological	.659
Too much reading and writing	Epistemological	.644
Didn't like the teaching style	Dispositional	.601
Course was taking too much time	Epistemological	.559
No interest in subject matter	Epistemological	.425
Took same course, but not online	Institutional	.424
Factor 3: Dispositional Barriers, or "It's All in the Delivery."		
Course too unstructured	Dispositional	.715
Didn't know where to go for help	Institutional	.706
Didn't like the online format	Dispositional	.692
Technical difficulties	Institutional	.560
Lack of motivation	Dispositional	.477
Factor 4: Situational Barriers, or "Life Happens"		
Couldn't handle course plus work/family responsibilities	Situational	.740
Got behind, too hard to catch-up	Dispositional	.669
Registered for too many courses	Situational	.424
Personal Problems	Situational	.367
Lack of access to computer	Situational	.320

Discussion and Conclusions

The archival and survey data collected in this study provided insight into the nature of student retention in online courses at a large community college, including characteristics of students most likely to be unsuccessful in online courses, and students' reasons for withdrawing or not successfully completing online courses in which they were enrolled. The study also provided evidence supporting the four-factor model of barriers to success in distance education courses proposed by Garland (1993).

A picture emerges of students who have a lot to do and do not keep up with the work in online courses. Some factors that appear to negatively impact a student's chances for successfully completing an online course are: carrying a large course load (full-time), lack of experience in higher education in general, lack of experience with online courses, busy lives outside of school, lack of maturity (young age), and lack of easy access to computers (especially true for black students in our survey sample). The more previous higher education experience students have when they enroll in online courses and the more mature (i.e., older) they are, the better they seem to be able to handle the more flexible structure of online instruction, to negotiate entry into the course, and to find help when needed.

The study findings are being used to inform practice via a comprehensive institutional pilot process. Since many of the key areas of concern to students manifest themselves at the beginning of, and just prior to, the beginning of the course, a multi-pronged approach is being tested. The intent of this framework is to scaffold the students in three areas: 1) Manage the expectations of students, 2) Manage the support services for students, and 3) Manage the academic issues.

Manage the Expectations of Students

The study results suggest that students in online courses for the first time have misperceptions about online instruction, and that the less experience they have in higher education, the less likely they are to succeed online. Full-time students, especially those with fewer than 30 earned hours, those under 25 years of age, and black students, should be targeted for advising and orientation to be sue they understand what will be requ ed.

To better orient the students before they register or enter the online course, additional support is now offered in the following areas:

- Enhanced awareness of the rigors and writing-intensive nature of online courses—this information is being made available on-campus and on the college web site;
- Face-to-face pre-course student orientations facilitated by faculty, advisors, and technical staff;
- An Assessment of Readiness checklist and the "Ten Myths of Online Learning" video (both available on the college's website) help students identify their own level of readiness for the online environment;
- A pilot test in the Fall 2002 semester will assign a "technical tutor" to students in selected courses for the first three weeks of the semester—the tutor will provide additional scaffolding to students and will assist them with numerous technical issues such as password assignment, questions on the online student orientation, attaching documents, etc.;
- Finally, a "Getting Started in Your Online Course" CD has been developed, pilot tested, and revised. The updated CD will be sent to all Fall 2002 online students at least two weeks before the start of the semester.

Manage the Support Services for Students

Survey respondents indicated that they often "did not know where to go for help." Efforts to make students aware of existing and enhanced student assistance is being accomplished through greater integration of the online support team activities with the offices of Registration, Admissions, Bookstore, Web Development, Financial Aid, Counseling, Advising, etc. In addition, increased emphasis is being placed on ways in which the students can access the central Technical Help Desk (phone and online). Plans are also underway to implement an online student Non-technical Help Desk (phone and online) to respond to student questions outside of the technical realm.

Manage the Academics

The survey findings suggest that the "course structure," "getting clear directions on how to get started," and "instructor teaching style" were directly related to non-retention of students in our sample. Thus, the third prong of the framework addresses academic issues related to the development and delivery of the course itself. A portion of the online faculty course development training now specifically addresses the integration of retention strategies in the course design and delivery process. Faculty members are encouraged to include multiple opportunities for early interaction with their online students. In particular, faculty teaching "tough" courses associated with non-completion should review course structure and delivery with an eye to enhancing student retention.

Specific recommendations include the use of an "ice-breaker" activity (with timely faculty feedback) in the first course module in order to engage students early-on, beginning the course with non-graded, self-assessment activities, and requiring "self-introductions" at the start of the course—the faculty often insert their own introduction first to allow students to model the faculty member's information. These initial interactions allow for the discovery of

commonalities among the students and the instructor, and form the beginnings of an online learning community. The importance of all types of interaction (threaded discussions, group work and projects, student-led discussions, etc.) should be emphasized with students, and instructor expectations for these interactions should be made clear. The college's online support team offers these (and other) recommendations to faculty developing their first online course as well as to those experienced faculty members revising their current courses.

The three-part support framework described above will be evaluated in Fall 2002 with a focus on its potential impact on the retention of online students. The withdrawal survey is currently being repeated with Fall 2001 and Spring 2002 online students who received grades of F or W. We anticipate that further results will provide additional valuable information regarding students' reasons for withdrawing from or not successfully completing online courses.

The survey instrument and additional information about the retention studies will be made available online via the college's website beginning Summer 2002, and will be maintained and updated as new data become available.

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